

will range from about 1-2 days to 30 days, more typically about 5 - 15 days, and most typically about 10 days. - -

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1, 3-6, 8, and 9 are amended, claim 12 is canceled, and new claims 13-15 are added.

1. (currently amended) A method for inducing T-cell tolerance or non-responsiveness of donor T-cells to desired alloantigen-bearing ~~or xenoantigen-bearing~~ cells ~~in vitro~~ ex vivo comprising the following:

- (i) providing a culture containing donor tissue containing donor T cells;
- (ii) producing a mixed lymphocyte reaction culture by adding to said donor T-cell culture alloantigen-bearing ~~or xenoantigen-bearing~~ cells;
- (iii) adding an anti-gp39 antibody or a gp39-binding fragment thereof to the resultant mixed lymphocyte culture ~~a gp39-antagonist~~;
- (iv) maintaining these cells in culture ex vivo for a sufficient time to render the donor T-cells substantially tolerant or non-responsiveness to said alloantigen-bearing ~~or xenoantigen-bearing~~ cells; and
- (v) assaying ex vivo for induction of donor T-cell tolerance or non-responsiveness.

2. The method of Claim 1, wherein the tissue containing donor T-cells is donor bone marrow or peripheral blood cells.

3. (currently amended) The method of Claim 1, wherein the gp39 antagonist is ~~selected from the group consisting of a gp39-binding Fab or F(ab')₂ fragment of an anti-gp39 antibody, soluble CD40 and soluble CD40 fusion protein.~~

4. (currently amended) The method of Claim 3 1, wherein the gp39 antagonist is an anti-human gp39 monoclonal antibody.

5. (currently amended) The method of Claim 4, wherein said anti-gp39 antibody is an a chimeric or humanized anti-human gp39 monoclonal antibody.

6. (currently amended) The method of Claim 1, wherein the donor T-cells are cultured ~~with said gp39 antagonist~~ in step iv for a time ranging from about 1 to 30 days.

7. The method of Claim 6, wherein said time ranges from 5 to 15 days.

8. (currently amended) The method of Claim 1, wherein the ~~alloantigen-bearing or xenoantigen-bearing~~ cells comprise cells or tissue obtained from a potential transplant recipient that has been treated to deplete recipient T-cells.

9. (currently amended) The method of Claim 8, wherein recipient T-cell depletion is effected by irradiation.

10. The method of Claim 1, wherein the donor T-cells are transplanted into a recipient in need of such transplantation.

11. The method of Claim 10, wherein the recipient is in need of immune reconstitution as a result of disease or disease treatment.

12. canceled

13. (new) The method of Claim 1, wherein the step of assaying for induction of donor T-cell tolerance or non-responsiveness comprises measuring IL-2 concentration in the cell culture medium supernatants of the donor T-cells cultured in step iv and of control donor T-cells,

wherein detection of reduced IL-2 concentration in the supernatant of the donor T-cells cultured in step iv relative to that of the control T-cells is indicative of substantial donor T-cell tolerance or non-responsiveness to the alloantigen-bearing cells.

14. (new) The method of Claim 1, wherein the step of assaying for induction of donor T-cell tolerance or non-responsiveness comprises measuring the concentration of interferon-gamma in the cell culture medium supernatants of the donor T-cells cultured in step iv and of control donor T-cells,

wherein detection of reduced interferon-gamma concentration in the supernatant of the donor T-cells cultured in step iv relative to that of the control T-cells is indicative of substantial donor T-cell tolerance or non-responsiveness to the alloantigen-bearing cells.

15. (new) The method of Claim 1, wherein the step of assaying for induction of donor T-cell tolerance or non-responsiveness comprises assaying to detect at least one antigen selected from the group consisting of L-selectin, ICAM-1, and CD45 in the donor T-cells cultured in step iv and control donor T-cells,

wherein detection of an increased amount of L-selectin or ICAM-1, or a reduced amount of CD45 in the donor T-cells cultured in step iv relative to that in the control donor T-cells is indicative of substantial donor T-cell tolerance or non-responsiveness to the alloantigen-bearing cells.